

**Table C-7. Supplemental contaminant screening for OU 4-05, CFA-04: Pond (CFA-674)**

Workplan COPC [a]	Units	Step 1				Step 2		
		Maximum Detected Concentration	Background Concentration		Is the maximum concentration greater than background value?	Soil Risk-Based Concentration		Is the maximum concentration greater than RBC?
Aroclor-1254	mg/kg	2.8	--		--	0.32	[d]	YES
Arsenic	mg/kg	22.4	7.4	[b]	YES	0.43	[d]	YES
Carbazole	mg/kg	0.036	--		--	32	[d]	NO
Chromium	mg/kg	237	50	[b]	YES	390	[d]	NO
Lead	mg/kg	49.3	23	[b]	YES	400	[e]	NO
Mercury	mg/kg	439	0.074	[b]	YES	23	[d]	YES
Silver	mg/kg	121	6		--	390	[d]	NO
Cs-137	pCi/g	2	1.28	[b]	YES	0.23	[f]	YES
U-234	pCi/g	22.6	1.95	[b]	YES	18	[f]	YES
U-235	pCi/g	1.6	--		--	0.13	[f]	YES
U-238	pCi/g	35	1.85	[b]	YES	0.67	[f]	YES

**Notes:**

-- = Screening concentration is not available for this chemical.

**Reference:**

- [a] Idaho National Environmental and Engineering Laboratory (INEEL). 1997. Waste Area Group 4 (WAG 4) Workplan, Attachment
- [b] Rood, S.M., G.A. Harris, and G.J. White. 1995. *Background Dose Equivalent Rates and Surficial Soil, Metal, and Radionuclide* Idaho National Engineering Laboratory, INEEL-94/0250, Rev. 0. February.
- [c] Toxic Substance Control Act (TSCA). Cleanup of PCB Spills. Federal Register, 7 Feb. 1978, 43 FR 7150 and 31 May 1979, 44
- [d] U.S. Environmental Protection Agency (USEPA). 1997. Region III Risk-Based Concentration Table. Philadelphia, Pennsylvania
- [e] U.S. Environmental Protection Agency (USEPA). 1994. Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Cor Office of Solid Waste and Emergency Response, Washington, C.C. OSWER Directive #9355.4-12. July.
- [f] Fromm, Jeff. 1996. Environmental Toxicologist, Remediation Bureau. Memo to INEL WAG Managers and Technical Support Staff. Radionuclide Risk-Based Concentration Tables. Table 5. January 3.

**Table C-8. Summary Statistics for CFA-04**

<b>COPC</b>	<b>Units</b>	<b>Number of Samples</b>	<b>Number of Detects</b>	<b>Detection Frequency</b>	<b>Minimum Detected</b>	<b>Rad Uncrt (+/-)</b>	<b>Maximum Detected</b>	<b>Rad Uncrt (+/-)</b>	<b>Arithmetic Mean</b>	<b>Standard Deviation</b>	<b>Lognorm 95% UCL</b>
Aroclor-1254	mg/kg	9	7	77.8%	0.1		2.8		5.89E-01	8.95E-01	1.68E+0
Arsenic	mg/kg	144	143	99.3%	3.1		22.4		8.35E+00	2.80E-01	9.06E+0
Carbazole	mg/kg	14	1	7.1%	0.036		0.036		1.80E-01	4.34E-02	2.42E-0
Lead	mg/kg	78	78	100.0%	7.5		49.3		1.61E+01	3.50E-01	1.81E+0
Mercury	mg/kg	267	247	92.5%	0.09		439		4.13E+01	2.74E+00	3.45E+0
Cs-137	pCi/g	57	39	68.4%	0.007	0.03	2	0.3	1.50E-01	2.04E+00	2.61E+0
U-234	pCi/g	46	46	100.0%	0.651	0.05	22.6	1.4	2.53E+00	4.34E+00	2.73E+0
U-235	pCi/g	132	104	78.8%	0.0225	0.01	1.6	0.2	8.00E-02	8.00E-01	1.50E-0
U-238	pCi/g	78	78	100.0%	0.707	0.347	35	2	1.25E+00	7.90E-01	1.96E+0

**Notes:**

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.

UCL values are shown only if these minimum sample requirements are met.

-- = Background concentration is not available for this chemical.

NA = Not Applicable.

**Table C-9. Summary Statistics for CFA-04 (By Depth Zone)**

Compound	Units	Depth Zone (ft bgs)	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	S
Arsenic	mg/kg	0-0.5	71	70	98.6%	3.1	12.4	7.43E+00	2
Mercury	mg/kg	0-0.5	112	102	91.1%	0.12	439	4.84E+01	8
Cs-137	pCi/g	0-0.5	6	6	100.0%	0.16	2	1.10E+00	7
U-234	pCi/g	0-0.5	22	22	100.0%	0.657	22.6	1.58E+00	1
U-235	pCi/g	0-0.5	27	27	100.0%	0.0286	1.6	1.30E-01	1
U-238	pCi/g	0-0.5	22	22	100.0%	0.805	35	1.91E+00	1
Arsenic	mg/kg	0.5-4	60	60	100.0%	4.7	22.4	8.03E+00	2
Mercury	mg/kg	0.5-4	9	2	22.2%	138	147	3.17E+01	6
Cs-137	pCi/g	0.5-4	9	3	33.3%	0.0776	1.45	1.35E-01	1
U-234	pCi/g	0.5-4	10	10	100.0%	0.745	3.1	1.52E+00	1
U-235	pCi/g	0.5-4	18	11	61.1%	0.0276	0.43	6.79E-02	7
U-238	pCi/g	0.5-4	10	10	100.0%	0.71	4.6	9.90E-01	3
Arsenic	mg/kg	4-10	15	15	100.0%	6.5	14.9	9.60E+01	2
Mercury	mg/kg	4-10	15	3	20.0%	0.39	73	6.36E+00	1
Cs-137	pCi/g	4-10	11	5	45.5%	0.0742	0.157	6.70E-02	6
U-234	pCi/g	4-10	14	14	100.0%	0.651	2.45	1.26E+00	4
U-235	pCi/g	4-10	24	14	58.3%	0.0225	0.139	7.25E-02	6
U-238	pCi/g	4-10	14	14	100.0%	0.732	2.98	1.26E+00	4

**Notes:**

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.

UCL values are shown only if these minimum sample requirements are met.

**Table C-10. Supplemental contaminant screening for OU 4-05, CFA-17 (Fire Department Training Area, Bermed) and CFA-47 (FI**

Workplan COPC [a]	Units	Maximum Detected Concentration	Step 1			Step 2		
			Background Concentration		Is the maximum concentration greater than background value?	Soil Risk-Based Concentration		Is the maximum concentration greater than RBC?
Aroclor-1260	mg/kg	NS						
Arsenic	mg/kg	NS	7.4	[c]	NO	0.43	[b]	NO
Benzo(b)fluoranthene	mg/kg	0.2	--		--	0.88	[b]	NO
Benzo(g,h,i)perylene	mg/kg	0.16	--		--	--		--
Chrysene	mg/kg	0.16	--		--	88	[b]	NO
Lead	mg/kg	NS	23	[c]	NO	400	[d]	NO
Phenanthrene	mg/kg	0.14	--		--	--		--

**Notes:**

NS = Not sampled.

ND = Not detected.

-- = Screening concentration is not available for this chemical.

**Reference:**

[a] Idaho National Environmental and Engineering Laboratory (INEEL). 1997. Waste Area Group 4 (WAG 4) Workplan, Attachment III. Id

[b] U.S. Environmental Protection Agency (USEPA). 1997. Region III Risk-Based Concentration Table. Philadelphia, Pennsylvania. O

[c] Rood, S. M., G. A. Morris, and G. J. White, 1995, Background Dose Equivalent Rates and Surficial Soil, Metal, and Radionuclide Cor  
Idaho National Engineering Laboratory, INEEL-94/0250, Rev. 0, February.

[d] EPA, 1994, Revised Interim Soil Lead Guidance for CERCLA sites and RCRA Corrective Action Facilities, Office of Solid Waste and  
Washington DC, OSWER Directive 9355.4-12, July.

**Table C-11. Summary Statistics for CFA-17/47**

COPC	Units	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	Standard Deviation	Lognormal 95% UCL [a]	INEEI Cor
Aroclor-1260	mg/kg	NS								
Arsenic	mg/kg	NS								
Benzo(b)fluoranthene	mg/kg	43	3	7.0%	0.0176	0.2	2.37E-02	6.25E-02	1.09E-01	
Benzo(g,h,i)perylene	mg/kg	43	1	2.3%	0.16	0.16	1.98E-02	5.69E-02	9.74E-02	
Chrysene	mg/kg	43	2	4.7%	0.0264	0.16	1.23E-02	3.51E-02	3.57E-01	
Lead	mg/kg	NS								
Phenanthrene	mg/kg	43	2	4.7%	0.0252	0.14	1.18E-02	3.31E-02	4.71E-01	

**Notes:**

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.

UCL values are shown only if these minimum samples requirements are met.

-- = Background concentration is not available for this chemical.

NA = Not Applicable.

NS = Not Sampled.

**Table C-12. Summary Statistics for CFA-17/47 (By Depth Zone)**

COPC	Units	Depth Zone (ft bgs)	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	Standard Deviation
Benzo(g,h,i)perylene	mg/kg	0-0.5	2	0	0.0%				
Phenanthrene	mg/kg	0-0.5	2	0	0.0%				
Benzo(g,h,i)perylene	mg/kg	0.5-4	18	1	5.6%	0.16	0.16	1.79E-02	3.66E-02
Phenanthrene	mg/kg	0.5-4	18	2	11.1%	0.0252	0.14	1.36E-02	3.22E-02
Benzo(g,h,i)perylene	mg/kg	4-10	14	0	0.0%				
Phenanthrene	mg/kg	4-10	14	0	0.0%				
Benzo(g,h,i)perylene	mg/kg	>10	9	0	0.0%				
Phenanthrene	mg/kg	>10	9	0	0.0%				

**Notes:**

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.

UCL values are shown only if these minimum samples requirements are met.

**Table C-13. Supplemental contaminant screening for OU 4-07, CFA-06: Lead Shop (outside areas)**

Workplan COPC [a]	Units	Step 1				Step 2		
		Maximum Detected Concentration	Background Concentration		Is the maximum concentration greater than background value?	Soil Risk-Based Concentration		Is the maximum concentration greater than RBC?
Arsenic	mg/kg	14.5	7.4	[b]	YES	0.43	[c]	YES
Lead	mg/kg	153	23	[b]	YES	400	[d]	NO

**Notes:**

– = Screening concentration is not available for this chemical.

**Reference:**

[a] Idaho National Environmental and Engineering Laboratory (INEEL). 1997. Waste Area Group 4 (WAG 4) Workplan, Attachment III. I.

[b] Rood, S.M., G.A. Harris, and G.J. White. 1995. *Background Dose Equivalent Rates and Surficial Soil, Metal, and Radionuclide Concentrations*. Idaho National Engineering Laboratory, INEEL-94/0250, Rev. 0. February.

[c] U.S. Environmental Protection Agency (USEPA). 1997. Region III Risk-Based Concentration Table. Philadelphia, Pennsylvania. O

[d] U.S. Environmental Protection Agency (USEPA). 1994. Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Sites. Office of Solid Waste and Emergency Response, Washington, C.C. OSWER Directive #9355.4-12. July.

[e] Detected concentrations of arsenic are not source related and are assumed to be within the range of background concentrations for II. Arsenic is therefore eliminated as a COPC.

**Table C-14. Summary Statistics for CFA-06**

COPC	Units	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	Standard Deviation	Lognormal 95% UCL [a]	Background Concentration
Arsenic	mg/kg	29	7	24.1%	10.4	14.5	6.83E+00	3.12E+00	7.74E+00	7.4
Lead	mg/kg	35	26	74.3%	10.4	153	3.14E+01	4.15E+01	4.56E+01	23

**Notes:**

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.

UCL values are shown only if these minimum sample requirements are met.

Table C-15. Supplemental contaminant screening for OU 4-06, CFA-43: Lead Storage Area

Workplan COPC [a]	Units	Maximum Detected Concentration	Step 1			Step 2		
			Background Concentration		Is the maximum concentration greater than background value?	Soil Risk-Based Concentration		Is the maximum concentration greater than RBC?
Lead	mg/kg	180	23	[b]	YES	400	[c]	NO

**Notes:**

-- = Screening concentration is not available for this chemical.

**Reference:**

[a] Idaho National Environmental and Engineering Laboratory (INEEL). 1997. Waste Area Group 4 (WAG 4) Workplan, Attachment III. I.

[b] Rood, S.M., G.A. Harris, and G.J. White. 1995. *Background Dose Equivalent Rates and Surficial Soil, Metal, and Radionuclide Concentrations*. Idaho National Engineering Laboratory, INEEL-94/0250, Rev. 0. February.

[c] U.S. Environmental Protection Agency (USEPA). 1994. Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Sites. Office of Solid Waste and Emergency Response, Washington, C.C. OSWER Directive #9355.4-12. July.

C-25

**Table C-16. Summary Statistics for CFA-43**

COPC	Units	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	Standard Deviation	Lognormal 95% UCL [a]	Background Concentration
Lead	mg/kg	69	67	97.10%	6.1	180	3.09E+01	3.58E+01	3.73E+01	23

**Notes:**

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.

UCL values are shown only if these minimum sample requirements are met.

**Table C-17. Supplemental contaminant screening for OU 4-06, CFA-44: Spray Paint Booth Drain**

Workplan COPC [a]	Units	Maximum Detected Concentration	Step 1		Step 2			
			Background Concentration	Is the maximum concentration greater than background value?	Soil Risk-Based Concentration	Is the n conce great RI		
Lead	mg/kg	51.1	23	[b]	YES	400	[c]	f

**Notes:**

-- = Screening concentration is not available for this chemical.

**Reference:**

[a] Idaho National Environmental and Engineering Laboratory (INEEL). 1997. Waste Area Group 4 (WAG 4) Workplan, Attachment

[b] Rood, S.M., G.A. Harris, and G.J. White. 1995. *Background Dose Equivalent Rates and Surficial Soil, Metal, and Radionuclide Concentrations*. Idaho National Engineering Laboratory, INEEL-94/0250, Rev. 0. February.

[c] U.S. Environmental Protection Agency (USEPA). 1994. Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Sites. Office of Solid Waste and Emergency Response. Washington, D.C. OSWER Directive #9355.4-12. July.

**Table C-18. Summary Statistics for CFA-44**

<b>COPC</b>	<b>Units</b>	<b>Number of Samples</b>	<b>Number of Detects</b>	<b>Detection Frequency</b>	<b>Minimum Detected</b>	<b>Maximum Detected</b>	<b>Arithmetic Mean</b>	<b>Standard Deviation</b>	<b>Lognormal 95% UCL [a]</b>	<b>Background Concentration</b>
Lead	mg/kg	6	5	83.3%	5.8	51.1	2.09E+01	1.83E+01	2.51E+02	23

**Notes:**

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.

UCL values are shown only if these minimum sample requirements are met.

Table C-19. Supplemental contaminant screening for OU 4-07, CFA-07: French Drain E/S (CFA-833)

Workplan COPC [a]	Units	Maximum Detected Concentration	Step 1			Step 2	
			Background Concentration		Is the maximum concentration greater than background value?	Soil Risk-Based Concentration	Is the concentra- tion greater than R
Arsenic	mg/kg	9	7.4	[b]	YES	0.43	[c]
Lead	mg/kg	4580	23	[b]	YES	400	[d]
Ag-108m	pCi/g	0.43	--		--	0.012	[e]
Co-60	pCi/g	3.6	--		--	7400	[e]
Cs-137	pCi/g	104	1.28	[b]	YES	0.23	[e]
Pu-238	pCi/g	9.3	0.0091	[b]	YES	6.7	[e]

**Notes:**

-- = Screening concentration is not available for this chemical.

**Reference:**

- [a] Idaho National Environmental and Engineering Laboratory (INEEL). 1997. Waste Area Group 4 (WAG 4) Workplan, Attachment 1.
- [b] Rood, S.M., G.A. Harris, and G.J. White. 1995. *Background Dose Equivalent Rates and Surficial Soil, Metal, and Radionuclide Concentrations*. Idaho National Engineering Laboratory, INEEL-94/0250, Rev. 0. February.
- [c] U.S. Environmental Protection Agency (USEPA). 1997. Region III Risk-Based Concentration Table. Philadelphia, Pennsylvania.
- [d] U.S. Environmental Protection Agency (USEPA). 1994. Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Sites. Office of Solid Waste and Emergency Response, Washington, D.C. OSWER Directive #9355.4-12. July.
- [e] Fromm, Jeff. 1996. Environmental Toxicologist, Remediation Bureau. Memo to INEL WAG Managers and Technical Support Staff. Radionuclide Risk-Based Concentration Tables. Table 5. January 3.
- [f] Detected concentrations of arsenic are not source related and are assumed to be within the range of background concentration. Arsenic is therefore eliminated as a COPC.

C-29

**Table C-20. Summary Statistics for CFA-07**

COPC	Units	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Rad Uncert (+/-)	Maximum Detected	Rad Uncert (+/-)	Arithmetic Mean	Standard Deviation	Lognormal 95% UCL [a]	B Co
Arsenic	mg/kg	7	7	100.0%	1.5		9		4.24E+00	2.70E+00	9.33E+00	
Lead	mg/kg	7	7	100.0%	74		4580		2.17E+03	2.20E+03	6.57E+05	
Ag-108m	pCi/g	3	3	100.0%	0.29	0.03	0.43	0.04	3.63E-01	7.02E-02	5.81E-01	
Co-60	pCi/g	5	5	100.0%	0.13	0.02	3.6	0.3	1.03E+00	1.49E+00	2.27E+02	
Cs-137	pCi/g	6	6	100.0%	26.3	1.9	104	8	5.39E+01	3.26E+01	1.10E+02	
Pu-238	pCi/g	6	4	66.7%	0.08	0.02	9.3	0.3	3.65E+00	4.21E+00	1.16E+08	

**Notes:**

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.

UCL values are shown only if these minimum sample requirements are met.

-- = Background concentration is not available for this chemical.

NA = Not Applicable.

C-30

**Table C-21.** Summary Statistics for CFA-07 (By Depth Zone)

COPC	Units	Depth Zone (ft bgs)	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	Standard Deviation
Lead	mg/kg	0-0.5	NS						
Ag-108m	pCi/g	0-0.5	NS						
Cs-137	pCi/g	0-0.5	NS						
Pu-238	pCi/g	0-0.5	NS						
Lead	mg/kg	0.5-4	NS						
Ag-108m	pCi/g	0.5-4	NS						
Cs-137	pCi/g	0.5-4	NS						
Pu-238	pCi/g	0.5-4	NS						
Lead	mg/kg	4-10	NS						
Ag-108m	pCi/g	4-10	NS						
Cs-137	pCi/g	4-10	NS						
Pu-238	pCi/g	4-10	NS						
Lead	mg/kg	>10	7	7	100.0%	74	4580	2.17E+03	2.20E+01
Ag-108m	pCi/g	>10	3	3	100.0%	0.29	0.43	3.63E-01	7.02E-01
Cs-137	pCi/g	>10	6	6	100.0%	26.3	104	5.39E+01	3.26E+01
Pu-238	pCi/g	>10	6	4	66.7%	0.08	9.3	3.65E+00	4.21E+00

**Notes:**

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.

UCL values are shown only if these minimum sample requirements are met.

NS = Not Sampled.

Table C-22. Supplemental contaminant screening for OU 4-07, CFA-12: French Drain (2) (CFA-690)

Workplan COPC [a]	Units	Maximum Detected Concentration	Step 1			Step 2		
			Background Concentration		Is the maximum concentration greater than background value?	Soil Risk-Based Concentration	Is the n conce great RI	
Ag-108m	pCi/g	2.46	–		–	0.012	[c]	Y
Am-241	pCi/g	23.7	0.019	[b]	YES	2.9	[c]	Y
Ba-133	pCi/g	0.77	–		–	0.197	[a]	Y
Co-60	pCi/g	2.9	–		–	7400	[c]	†
Cs-134	pCi/g	0.94	–		–	2.4E+13	[c]	†
Cs-137	pCi/g	1070	1.28	[b]	YES	0.23	[c]	Y
Eu-152	pCi/g	10.6	–		–	2.7	[c]	Y
Eu-154	pCi/g	0.73	–		–	52	[c]	†
U-235	pCi/g	2.4	–		–	0.13	[c]	Y
U-238	pCi/g	18.3	1.85	[b]	YES	0.67	[c]	Y
Zn-65	pCi/g	0.08	–		–	5E+44	[c]	†

**Notes:**

– = Screening concentration is not available for this chemical.

**Reference:**

[a] Idaho National Environmental and Engineering Laboratory (INEEL). 1997. Waste Area Group 4 (WAG 4) Workplan, Attachment 1.

[b] Rood, S.M., G.A. Harris, and G.J. White. 1995. *Background Dose Equivalent Rates and Surficial Soil, Metal, and Radionuclide Concentrations*. Idaho National Engineering Laboratory, INEEL-94/0250, Rev. 0. February.

[c] Fromm, Jeff. 1996. Environmental Toxicologist, Remediation Bureau. Memo to INEL WAG Managers and Technical Support Staff. Radionuclide Risk-Based Concentration Tables. Table 5. January 3.

**Table C-23.** Summary Statistics for CFA-12

COPC	Units	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Rad Uncert (+/-)	Maximum Detected	Rad Uncert (+/-)	Arithmetic Mean	Standard Deviation	Lognormal 95% UCL [a]	C
Ag-108m	pCi/g	1	1	100.0%	2.46	0.19	2.46	0.19	2.46E+00	0.00E+00		
Am-241	pCi/g	4	4	100.0%	0.09	0.02	23.7	0.3	9.74E+00	1.17E+01	2.16E+16	
Ba-133	pCi/g	1	1	100.0%	0.77	0.18	0.77	0.18	7.70E-01	0.00E+00		
Co-60	pCi/g	2	2	100.0%	0.063	0.02	2.9	0.2	1.48E+00	2.01E+00		
Cs-134	pCi/g	1	1	100.0%	0.94	0.09	0.94	0.09	9.40E-01	0.00E+00		
Cs-137	pCi/g	3	3	100.0%	10.2	0.8	1070	80	3.65E+02	6.11E+02	1.18E+30	
Eu-152	pCi/g	1	1	100.0%	10.6	0.8	10.6	0.8	1.06E+01	0.00E+00		
Eu-154	pCi/g	1	1	100.0%	0.73	0.11	0.73	0.11	7.30E-01	0.00E+00		
U-235	pCi/g	4	2	50.0%	1.2	0.2	2.4	0.1	9.00E-01	1.15E+00	5.92E+00	
U-238	pCi/g	3	3	100.0%	0.8	0.1	18.3	0.2	6.63E+00	1.01E+01	1.49E+14	
Zn-65	pCi/g	1	1	100.0%	0.08	0.04	0.08	0.04	8.00E-02	0.00E+00		

**Notes:**

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.

UCL values are shown only if these minimum sample requirements are met.

-- = Background concentration is not available for this chemical.

NA = Not Applicable.

C-33

**Table C-24. Summary Statistics for CFA-12 (By Depth Zone)**

COPC	Units	Depth Zone (ft bgs)	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Maximum Detected	Arithmetic Mean	Standard Deviation
Ag-108m	pCi/g	0-0.5	NS						
Am-241	pCi/g	0-0.5	NS						
Ba-133	pCi/g	0-0.5	NS						
Cs-137	pCi/g	0-0.5	NS						
Eu-152	pCi/g	0-0.5	NS						
U-235	pCi/g	0-0.5	NS						
U-238	pCi/g	0-0.5	NS						
Ag-108m	pCi/g	0.5-4	NS						
Am-241	pCi/g	0.5-4	NS						
Ba-133	pCi/g	0.5-4	NS						
Cs-137	pCi/g	0.5-4	NS						
Eu-152	pCi/g	0.5-4	NS						
U-235	pCi/g	0.5-4	NS						
U-238	pCi/g	0.5-4	NS						
Ag-108m	pCi/g	4 - 10	1	1	100.0%	2.46	2.46	2.46E+00	0.00E+00
Am-241	pCi/g	4 - 10	4	4	100.0%	0.09	23.7	9.74E+00	1.17E+01
Ba-133	pCi/g	4 - 10	1	1	100.0%	0.77	0.77	7.70E-01	0.00E+00
Cs-137	pCi/g	4 - 10	3	3	100.0%	10.2	1070	3.65E+02	6.11E+02
Eu-152	pCi/g	4 - 10	1	1	100.0%	10.6	10.6	1.06E+01	0.00E+00
U-235	pCi/g	4 - 10	4	2	50.0%	1.2	2.4	9.00E-01	1.15E+00
U-238	pCi/g	4 - 10	3	3	100.0%	0.8	18.3	6.63E+00	1.01E+01
Ag-108m	pCi/g	>10	NS						
Am-241	pCi/g	>10	NS						
Ba-133	pCi/g	>10	NS						
Cs-137	pCi/g	>10	NS						
Eu-152	pCi/g	>10	NS						
U-235	pCi/g	>10	NS						
U-238	pCi/g	>10	NS						

**Notes:**

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.

UCL values are shown only if these minimum sample requirements are met.

NS = Not Sampled.

Table C-25. Supplemental contaminant screening for OU 4-08, CFA-08: Drainfield

Workplan COPC [a]	Units	Maximum Detected Concentration	Step 1		Step 2	
			Background Concentration	Is the maximum concentration greater than background value?	Soil Risk-Based Concentration	Is th con gr
Aroclor-1254	mg/kg	1.3	--	--	0.32	[d]
Aroclor-1260	mg/kg	0.14	--	--	0.32	[d]
Arsenic	mg/kg	16.8	7.4	[b]	YES	0.43 [d]
Carbazole	mg/kg	0.055	--	--	32	[d]
Isophorone	mg/kg	4.1	--	--	670	[d]
Am-241	pCi/g	0.14	0.019	[b]	YES	2.9 [e]
Co-60	pCi/g	24.1	--	--	7,400	[e]
Cs-137	pCi/g	180	1.28	[b]	YES	0.23 [e]
Eu-152	pCi/g	0.46	--	--	2.7	[e]
Eu-154	pCi/g	1.1	--	--	52	[e]
Pu-239/240	pCi/g	2.9	0.19	[b]	YES	2.5 [e]
U-235	pCi/g	0.44	--	--	0.13	[e]

**Notes:**

-- = Screening concentration is not available for this chemical.

**Reference:**

[a] Idaho National Environmental and Engineering Laboratory (INEEL). 1997. Waste Area Group 4 (WAG 4) Workplan, Attachment

[b] Rood, S.M., G.A. Harris, and G.J. White. 1995. *Background Dose Equivalent Rates and Surficial Soil, Metal, and Radionuclide*

Idaho National Engineering Laboratory, INEEL-94/0250, Rev. 0. February.

[c] Toxic Substance Control Act (TSCA). Cleanup of PCB Spills. Federal Register, 7 Feb. 1978, 43 FR 7150 and 31 May 1979, 44

[d] U.S. Environmental Protection Agency (USEPA). 1997. Region III Risk-Based Concentration Table. Philadelphia, Pennsylvania

[e] Fromm, Jeff. 1996. Environmental Toxicologist, Remediation Bureau. Memo to INEL WAG Managers and

Technical Support Staff. Radionuclide Risk-Based Concentration Tables. Table 5. January 3.

[f] Detected concentrations of arsenic are not source related and are assumed to be within the range of background concentrations f Arsenic is therefore eliminated as a COPC.

C-35

**Table C-26.** Summary Statistics for CFA-08 Drainfield

COPC	Units	Number of Samples	Number of Detects	Detection Frequency	Minimum Detected	Rad Uncrt (+/-)	Maximum Detected	Rad Uncrt (+/-)	Arithmetic Mean	Standard Deviation	Lognorm 95% UCL
Aroclor-1254	mg/kg	28	3	10.7%	0.58		1.3		1.07E-01	2.83E-01	1.05E-C
Aroclor-1260	mg/kg	28	4	14.3%	0.036		0.14		2.68E-02	2.58E-02	3.05E-C
Arsenic	mg/kg	31	31	100.0%	2.6		16.8		7.25E+00	3.26E+00	8.50E+C
Carbazole	mg/kg	28	1	3.6%	0.055		0.055		1.78E-01	2.73E-02	1.95E-C
Isophorone	mg/kg	28	1	3.6%	4.1		4.1		3.23E-01	7.40E-01	3.06E-C
Am-241	pCi/g	75	10	13.3%	0	0.02	0.14	0.03	1.79E-02	7.12E-02	1.64E+C
Co-60	pCi/g	63	29	46.0%	0.072	0.02	24.1	1.8	1.14E+00	3.35E+00	1.05E+C
Cs-137	pCi/g	65	47	72.3%	0.0795	0.03	180	5.75	2.33E+01	4.47E+01	8.36E+C
Eu-152	pCi/g	49	1	2.0%	0.46	0.08	0.46	0.08	9.62E-03	7.49E-02	9.84E+C
Eu-154	pCi/g	49	3	6.1%	0.189	0.08	1.1	0.11	2.95E-02	1.69E-01	1.08E+C
Pu-239/240	pCi/g	27	4	14.8%	0.07	0.03	2.9	0.1	1.31E-01	5.58E-01	1.05E+C
U-235	pCi/g	81	14	17.3%	0.031	0.01	0.44	0.21	4.86E-02	7.42E-02	3.73E-C

**Notes:**

[a] A minimum of three samples, with a positive detection for at least one of the samples, is required to calculate the UCL.

UCL values are shown only if these minimum sample requirements are met.

-- = Background concentration is not available for this chemical.

NA = Not Applicable.